

GATE-ENHANCED JUNCTION VARACTOR WITH GRADUAL CAPACITANCE VARIATION

By
Constantin Bulucea

ABSTRACT

A semiconductor junction varactor utilizes gate enhancement for enabling the varactor to achieve a high ratio of maximum capacitance to minimum capacitance. The varactor has a gate region (131 or 181) divided into multiple portions of differing zero-point threshold voltages for enabling the varactor capacitance to vary relatively gradually with a control voltage applied to the varactor.